

# Introduction to SPARCS

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Bureau of Health Informatics  
Office of Quality and Patient Safety  
New York State Department of Health  
Albany, New York 12237

# What is SPARCS?

- Statewide Planning and Research Cooperative System (SPARCS)
  - Cooperation between the health care industry and government
- Been in existence over 30 years: established through statute in 1979
- Calendar Year Based Discharge/Visit Dataset
- Claim level detail on patient characteristics, diagnoses and treatments, services, and charges for hospital discharges, ambulatory surgery, emergency department, and hospital based outpatient service visits (or EODC) in New York State

# SPARCS Data Collection

- **Inpatient Services**

- Article 28

- **Outpatient Visits**

- Emergency Department
- Ambulatory Surgery
  - Free-Standing Diagnostic & Treatment Center (D&TC)
  - Hospital Based
- Hospital Based Outpatient
  - EODC = Expanded Outpatient Data Collection

# How is SPARCS Data Submitted?

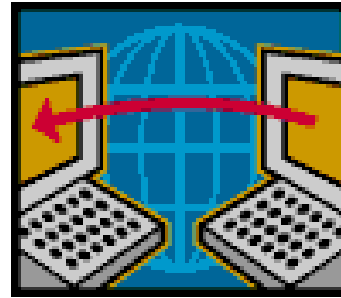
- Health care facilities submit their SPARCS data in an electronic, computer-readable format through NYSDOH's secure electronic network: the **Health Commerce System**
- All SPARCS data must be supported by documentation in the patient's medical and billing records

# SPARCS Submission Process



**Article 28  
Health  
Facilities**

*electronic* →



**Department of Health  
Health Commerce System (HCS)  
To  
MVS Mainframe System**

- Edits applied

# Who Submits to SPARCS?

- Facilities licensed under Article 28 of the Public Health Law
- Freestanding ambulatory surgery centers (D&TC's)
- The enabling legislation and regulations for SPARCS are located under Section 2816 of the Public Health Law (PHL), Section 400.18 of Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York (NYCRR)
  - State Finance Law, Article 6, 97-x (hospital fees)

# SPARCS File Types

- **Identifying/Deniable Data Requests**: Contain data elements that if disclosed without any restrictions on use or re-disclosure would constitute an unwarranted invasion of personal privacy
  - External applicants for Identifying Data must be approved by the **Data Governance Committee(DGC)**
- **Limited**: Contains some indirect patient identifiers, such as the month and year of date fields and some geographic identifiers of the patient
- **De-Identified**: Basic record level detail, all PHI removed ('FOIL File')

# Many Uses of SPARCS Data

- Financial, Rate Setting (e.g., APR-DRG SIWs)
- Developing and Evaluating Policy
- Epidemiology
- Health Planning/Resource Allocation
- Quality of Care Assessment
- Research
- Surveillance
- Utilization Review
- Geo-coding
- Linkages with other data sets, registries, etc.
- AHRQ Healthcare Cost and Utilization Project (HCUP)
- Potentially Preventable Hospitalizations (PQI/PDI)
- Potentially Preventable Readmissions (PPRs)
- Potentially Preventable Complications (PPCs)
- Patient Safety Indicators (PSI)
- Inpatient Quality Indicators (IQIs)
- Etc.



# Approved External Requests

- A listing of Approved SPARCS Data Requests may be found on the DOH Public Website at the following direct link:

[http://www.health.ny.gov/statistics/sparcs/dgc/appr\\_data\\_req.htm](http://www.health.ny.gov/statistics/sparcs/dgc/appr_data_req.htm)

## SPARCS Data: Available Years

Data Set	Available Years
Inpatient	1982 to Present
Ambulatory Surgery	1983 to Present
Emergency Room	2005 to Present
Outpatient Services	2011 to Present

# Data Completeness

- Files are refreshed on a monthly basis
- The calendar year of discharge data is considered complete in September of the following year
  - CY 2013 discharges were considered complete in September 2014
- Audit and Completeness Reports are posted monthly on the DOH public website

# SPARCS Compliance

- Health care facilities must submit at least 95% of data for all inpatient discharges and outpatient visits within 60 days from the end of the month of a patient's discharge or visit
- Health care facilities must submit 100% of data for all inpatient discharges and outpatient visits within 180 days from the end of the month of a patient's discharge or visit

[http://www.health.ny.gov/statistics/sparcs/reports/compliance/pfi\\_facilities.htm](http://www.health.ny.gov/statistics/sparcs/reports/compliance/pfi_facilities.htm)

# Expanded Race and Ethnicity *Timeline*

- The SPARCS system was able to accept reporting of the expanded data standards as of **July 1, 2013**
- Facilities should be fully transitioned to the expanded version for discharges as of **January 1, 2014**

# Expanded Race and Ethnicity

## *The Standards*

- Additional categories among Hispanic, Asian and Native Hawaiian or Pacific Islander populations
- Allow the reporting of up to ten selections of race and/or ethnicity

# Ethnicity Data Standards

Are you Hispanic, Latino/a, or Spanish origin?  
*(One or more categories may be selected)*

Ethnicity Standards			
<i>Are you Hispanic, Latino/a, or Spanish origin? (One or more categories may be selected)</i>			
Current Data Standard		Expanded Data Standard	
X12 Value	Ethnicity	X12 Value	Ethnicity
E1	Spanish/Hispanic Origin		
		E1.02	Mexican, Mexican American, Chicano/a
		E1.06	Puerto Rican
		E1.07	Cuban
		E1.**	Another Hispanic, Latino/a, or Spanish Origin
		E2	Not of Hispanic, Latino/a, or Spanish origin
E9	Unknown	E9	Unknown

# Race Data Standards

*What is your race? (One or more categories may be selected)*

Race Standards			
<i>What is your race? (One or more categories may be selected)</i>			
Current Data Standard		Expanded Data Standard	
X12 Value	Race	X12 Value	Race
R1	American Indian or Alaska Native	R1	American Indian or Alaska Native
R2	Asian		
		R2.01	Asian Indian
		R2.06	Chinese
		R2.08	Filipino
		R2.11	Japanese
		R2.12	Korean
		R2.19	Vietnamese
		R2.**	Other Asian
R3	Black or African American	R3	Black or African American
R4	Native Hawaiian or Pacific Islander		
		R4.01.001	Native Hawaiian
		R4.02.001	Guamanian or Chamorro
		R4.01.002	Samoa
		R4.** ***	Other Pacific Islander
R5	White	R5	White
R9	Other Race	R9	Other Race



# Expanded Race and Ethnicity

## *Other Requirements*

- Race and ethnicity will remain mandatory for inpatient, emergency department and ambulatory surgery reporting
- They will remain optional for the Expanded Outpatient Data Collection (EODC)

# SPARCS Data Fees

- External organizations requesting identifying SPARCS data are charged a reasonable fee for use. The fee is waived in the following circumstances:
  - Use by a Article 28 health care facility that submitted to the SPARCS program
  - Use by a Article 28 health care facility for the purpose of rate determinations or rate appeals and for health care-related research
  - Use by a Federal, New York State, county or local agency for health care-related purposes

# Readily Available SPARCS Data

- SPARCS data may be queried, and downloaded from an HCS application
  - Annual Report Generator
- Aggregated SPARCS data is also available on [health.data.ny.gov](https://health.data.ny.gov/)

<https://health.data.ny.gov/>

# Annual Report Generator

- HCS Application

- Open HCS => Applications => S => SPARCS Data Queries => Annual Report Generator

The screenshot shows the HCS Portal website in a Windows Internet Explorer browser window. The address bar displays the URL: [https://commerce.health.state.ny.us/hcsportal/hcs\\_home.portal?\\_nfpb=true&\\_windowLabel=hcs\\_all\\_apps](https://commerce.health.state.ny.us/hcsportal/hcs_home.portal?_nfpb=true&_windowLabel=hcs_all_apps). The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar shows various icons for navigation and actions. The website's header features the NYSDOH HCS logo and a welcome message for Mary Beth Conroy. A search bar is present with a 'Search' button and a link to 'Advanced Search'. The main navigation menu includes Home, Documents, Applications, My Account, Help, Contact Us, and Logout. The central content area is titled 'SPARCS Statewide Planning and Research Cooperative System' and 'ESTABLISHED IN 1979'. Below this, a purple banner reads 'HCS Portal | SPARCS Public Website | Request Upload Access for Additional Facilities'. The main content area is divided into two columns. The left column contains links to 'Instructions for Using the SPARCS Annual Report Generator', 'The SPARCS Data System', 'SPARCS Data and Report System (Permission Required)', and 'SPARCS Public Web site'. The right column is titled 'SPARCS Annual Report Generator' and includes a 'Select Report Type' section with a list of report types: Inpatient, Ambulatory Surgery, and Emergency Department. At the bottom of the main content area, a green box contains the contact information: 'CONTACT US AT: [sparc@health.state.ny.us](mailto:sparc@health.state.ny.us)'. The footer of the website includes links to 'About Us' and 'Terms of Use', and a version number 'Version: 3.3'. The browser's status bar at the bottom shows 'Done' and 'Local intranet'.

# SPARCS Annual Report Generator

- SPARCS inpatient, emergency department and ambulatory surgery data
- Report types include: age group, AP-DRG, APR-DRG, Severity of Illness, Major Diagnostic Category (MDC), discharge disposition, race, ethnicity, payer, gender, AHRQ Clinical Classification System (CCS) diagnosis or procedure categories, county and service category
- Reports may be grouped by facility, county, Health Service Area (HSA) or Commission Catchment Area (CCA)
- Simple listings, as well as comparisons
- Query results can be exported as .csv files

# Available SPARCS Data in Tool

- **Inpatient Services (2000 – 2013)**

- Article 28

- **Outpatient Visits**

- Emergency Department (2006 – 2013)
  - Ambulatory Surgery (2000 – 2013)
    - Free-Standing Diagnostic & Treatment Center (D&TC)
    - Hospital Based

<b>Data Set</b>	<b>Available Years</b>	<b># of Records</b>
Inpatient	2000-2013	36 Million
Ambulatory Surgery	2000-2013	23 Million
Emergency Department	2006-2013	48 Million
<b>Total</b>		<b>107 Million</b>

# SPARCS Data Query System

- Multi-Year  
(2000 => 2013)
- Comprehensive
  - Inpatient,
  - Emergency Department and
  - Ambulatory Surgery
- Refreshed Monthly
- Simple listings, as well as comparisons
- HIPAA Compliant
- User Friendly
- Fast (runs off aggregated data cubes)
- Exportable Query Output

# Query Reports by Year

## Report Type

DRG

Disch Disposition

Race or Ethnicity

Payer

Gender

Dx or Px Grouping

County

Service Category

## Area

Facility

County

Health Service  
Area (HSA)

Commission  
Catchment Area  
(CCA)

## Report On

Discharges

Days

Length of Stay

Charges

Charges /  
Discharge

Charges / Day

## Comparison

Year

Facility

County

HSA

CCA



# SPARCS on the Web

- Department of Health Public Website
  - <http://www.health.ny.gov/statistics/sparcs/>
  - Updating is currently in process
- Health Commerce System
  - Secure website
  - <https://commerce.health.state.ny.us/hpn/cgi-bin/applinks/subsparc/subsparc.cgi>
- Open.NY.Gov / Health Data NY

# Health.Data.NY.Gov

- Launch of [open.ny.gov](http://open.ny.gov) and [health.data.ny.gov](http://health.data.ny.gov)
- Currently have aggregated SPARCS data, beginning in 2010 for Inpatient Discharges
- Five years of de-identified files (CY2009 - CY 2013) at the discharge level (“FOIL File”)

# Health.Data.NY.Gov

## Hospital Discharges by Facility (SPARCS): Beginning 2010

- Hospital Name
- Type of Service
- Type of Insurance
- Patient Gender
- Discharged Dead or Alive
- Patient Age Group
- Discharge Year
- Number of Discharges
- Average Length of Stay
- Hospital Volume Ranking 2010
- Hospital Volume Ranking 2011

## Hospital Discharges by Patient County of Residence (SPARCS): Beginning 2010

- Patient County of Residence
- Patient Gender
- Patient Age
- Discharge Year
- Number of Discharges
- Average Length of Stay
- County Volume Ranking 2010
- County Volume Ranking 2011

# Contact Information

## Mailing Address:

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[SPARCS.requests@health.ny.gov](mailto:SPARCS.requests@health.ny.gov) (Data Access Inquiries and Requests)